

REMARKS

Applicant expresses appreciation to the Examiner for consideration of the subject patent application. This amendment is in response to the Office Action mailed June 24, 2005. Claims 1-95 are subject to restriction and/or election.

Claims 1-95 were originally presented. Claims 1-95 remain in the application.

Election/Restriction Requirements:

In response to the restriction requirement of June 24, 2005, the Applicant provisionally elects, with traverse, the group of invention I. The claims readable thereon being claims 1-28, 67-76, and 95.

The Applicant respectfully traverses the restriction requirement for the following reasons. Examination of at least the apparatus/method claims 1-95 in the same application would not pose a serious burden under M.P.E.P. § 805.05(e) because there is commonality of dominant elements between the claims of Groups I, II, and III. (FIGs. 2 and 3). Namely, all the embodiments shown in FIGs. 2 and 3 include at least a modulator amplifier having a switching mode. Further, it is common to search multiple classes for this area of technology. For example, US Patent 6,794,932 to Butler comprises a Class D switching mode amplifier. Classes searched include 330/10 and 330/207a. US Patents 6,842,070 and 6,724,249 to Nilsson comprises a multi-level Class-D amplifier. Classes searched in both patents include 330/10, 330/207a, and 330/251. US Patent 6,621,335 to Andersson comprises a Class D amplifier with passive RC circuit. Classes searched include 330/10; 330/118; 330/207A; 330/251; 330/291.

In addition, it appears that class 330, subclass 10 is an improper classification for claims 29-66. Sub-class 10 is for a mod-demod-type amplifier. The class requires a means to restore the original signal, eliminating any carrier frequency components. In contrast, parametric audio technology takes advantage of a naturally occurring phenomenon to demodulate a modulated signal. For example, the non-linear response of air to a modulated ultrasonic audio signal can be used to demodulate the audio signal. Thus, there is no demodulation in the modulator-amplifier disclosed in the present invention. Also, because independent claims 1, 29, 48, 67, 78, 77, and 86 all involve switching, it seems that they should all be classified in class 330, subclass 251.

Therefore, it would not be a burden on the examiner to search all of the classes listed in Groups I, II and III.

Furthermore, any subcombinations which may exist within the different groups do not have utility by themselves. Without independent utility, the inventions cannot be considered distinct under MPEP §806.05(c). Therefore, Applicant respectfully submits that claims 1-95 should not be restricted and urges the Examiner to withdraw the restriction requirement.

CONCLUSION

In light of the above, Applicant respectfully submits that pending claims 1-95 are now in condition for allowance. Therefore, Applicant requests that the rejections and objections be withdrawn, and that the claims be allowed and passed to issue. If any impediment to the allowance of these claims remains after entry of this Amendment, the Examiner is strongly encouraged to call Vaughn North at (801) 566-6633 so that such matters may be resolved as expeditiously as possible.

No claims were added. Therefore, no additional fee is due.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 20-0100.

DATED this 21 day of July, 2005.

Respectfully submitted,



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